CLAIMS

1. An apparatus (100), comprising a receive chain and a transmitting chain, which receives signal and transmits signal during separate time intervals characterized in that it further comprises:

power amplifying means (56) for amplifying a transmission signal; and

control means (30) for controlling said power amplifying means (56) based on a power level estimation of third order intermodulation products associated with said power amplifying means (56), said intermodulation products being represented by leakage signals going through switch to signal receiving elements during the transmitting mode.

2. The apparatus (100) of claim 1, wherein said control means (30) controls a bias current associated with said power amplifying means (56).

3. The apparatus (100) of claim 1, further comprising signal transmitting means (10) for wirelessly transmitting said transmission signal.

4. The apparatus (100) of claim 3, further comprising:

switching means (12) for providing passage of said transmission signal from said power amplifying means (56) to said signal transmitting means (10); and

wherein a leakage signal associated with said switching means (12) includes said third order intermodulation products.

5. The apparatus (100) of claim 1, wherein:

said transceiver apparatus (100) includes a transmitting mode and a receiving mode; and

said control means (30) comprises digital filtering means (32) for performing digital filtering operations during both said transmitting mode and said receiving mode.

6. The apparatus (100) of claim 5, wherein said digital filtering means (32) performs a high pass digital filtering operation during said transmitting mode, and performs a low pass digital filtering operation during said receiving mode.

7. The apparatus (100) of claim 1, wherein said control means (30) controls said power amplifying means (56) only if a transmitting power level of said transceiver apparatus (100) exceeds a predetermined threshold level.

8. The apparatus (100) of claim 7, characterized in that the bias current is maintained at its current level only said transmitting power level of said transceiver apparatus (100) does not exceed said predetermined threshold level.

9. A method (900) for controlling a transceiver apparatus (100), comprising:

detecting a power level of third order intermodulation products associated with a power amplifier (56) of said transceiver apparatus (950); and

controlling said power amplifier responsive to said detection (960, 970).

10. The method (900) of claim 9, wherein said controlling step includes controlling a bias current associated with said power amplifier (56).

11. The method of any of claims 9 or 10, characterized in that the bias current is reduced if an accumulator level is lower than a reference level

and in that the bias current is increased if said accumulator level is higher than said reference level, said accumulator level being an estimate of power level of third order intermodulation products.

12. The method of any of claims 9 to 11, characterized in that the bias current is modified only if a transmitting power level of said transceiver apparatus (100) exceeds a predetermined threshold level.

13. The method of any of claims 9 to 12 characterized in that the bias current is maintained at its current level only if said transmitting power level of said transceiver apparatus (100) does not exceed said predetermined threshold level.

14. The method (900) of any of claims 9 to 13, further comprised of:

using said power amplifier (56) to amplify a transmission signal; and

using a switch (12) to provide passage of said transmission signal from said power amplifier to a signal transmitting element (10).

15. The method (900) of any of claims 9 to 14, further comprised of using said signal transmitting element (10) to wirelessly transmit said transmission signal.

16. The method (900) of claim 14, wherein a leakage signal associated with said switch (12) includes said third order intermodulation products.

17. The method (900) of claim 9, wherein said detecting and controlling steps (950-970) are performed if a transmitting power level of said transceiver apparatus exceeds a predetermined threshold level (910).

18. The apparatus (100) of claim 1 to 7, wherein control means are set up using a single component such as a controller.

19. The apparatus (100) of claim 1 to 7, wherein switching means are set up using a single component such as a switch.